DEPARTMENT OF THE ARMY U.S. Army Corps of Engineers

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Technical Letter No. 1110-3-466

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## Engineering and Design SELECTION AND DESIGN OF OIL/WATER SEPARATORS AT ARMY FACILITIES

- This letter provides basic criteria and information Purpose. pertaining to the selection and design of oil/water separators at Army facilities.
- Applicability. This letter applies to all HOUSACE elements, major subordinate commands (MSC), districts, laboratories and field operating activities (FOA) having Army military construction and design responsibility.
- 3. Objective. The military is one of the largest purchasers of oil/water separators in the United States. The total number of separators currently owned and operated by the U.S. Army is in the thousands. A typical installation such as Ft. Carson has in excess of 150. In recent years, it has become obvious that many of the separators the Army has installed are not performing as anticipated. Deficiencies have occurred primarily as the result of inadequate design, misapplication of commercially available, pre-manufactured separators, failure to adequately understand the character of wastewaters being treated, and lack of maintenance frequently caused by inconvenient access to the separator and its working components. The Army has historically purchased and installed separators under the assumption that only oil and water has to be separated, and only under gravity conditions. However, the most common military applications seldom involve simple oil and water mixtures. Waste streams encountered frequently contain significant quantities of dirt, cleaning aids (detergents, solvents, etc.), fuels, floatable debris (vegetation, light sticks, etc.), as well as various other materials such as ammunition and ammunition casings, bolts, beverage cans and other items common to military equipment and activities. In order to correct the above deficiencies, this ETL has been prepared to provide guidance for design and construction of oil/water separators at Army installations.
- Action. The information attached at Appendix A to this technical letter will be used for planning, design and construction of oil/water separators and appurtenances at Army facilities.

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6. <u>Implementation</u>. This technical letter will have immediate application, as defined in paragraph 6c, ER 1110-345-100.

FOR THE DIRECTOR OF MILITARY PROGRAMS:

1 Appendix
APP A - Selection and
Design of Oil/Water
Separators at Army
Facilities

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